

CLAIMS:

1. Method of transmitting data packets from a transmitter to a receiver, wherein an indicator is sent along with each data packet of the data packets; wherein the indicator indicates whether the respective data packet is a new data packet or a re-sent data packet; wherein, when the receiver receives a data packet with an error, the receiver sends a first confirmation message to the transmitter; wherein, when the receiver decodes a first data packet without an error, which data packet was sent along with the indicator indicating that the first data packet is a new data packet after the receiver has sent a first confirmation message with respect to a second data packet, the receiver sends a second confirmation message to the transmitter; wherein the second confirmation message tells the transmitter to re-send the second data packet.
2. The method of claim 1, wherein, when the receiver receives an error-free data packet, the receiver sends a third confirmation message to the transmitter;
3. The method of claim 1, wherein the second data packet is re-sent without data.
4. The method of claim 1, wherein the second data packet is re-sent with one of a part of the data originally included in the second data packet and the complete data originally included in the second data packet.
5. The method of claim 1, wherein, instead of re-sending the second data packet, the transmitter ignores the second confirmation message and sends a new third data packet.
6. The method of claim 1, wherein the indicator has a length of 1 bit.

7. The method of claim 1, wherein the method is an extension of the HARQ protocol in UMTS; and wherein the indicator is sent via the High Speed Shared Control Channel of UMTS.

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8. System for transmitting data packets from a transmitter to a receiver, wherein the transmitter sends an indicator along with each data packet of the data packets; wherein the indicator indicates whether the respective data packet is a new data packet or a re-sent data packet; wherein, when the receiver decodes a data packet with an error, the receiver sends a first confirmation message to the transmitter; wherein, when the receiver decodes a first data packet without an error, which data packet was sent along with the indicator which indicates that the first data packet is a new data packet after the receiver has sent a first confirmation message with respect to a second data packet, the receiver sends a second confirmation message to the transmitter; wherein the second confirmation message tells the transmitter to re-send the second data packet.

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9. The system of claim 1, wherein the system is a UMTS mobile telecommunication system; and wherein the indicator is sent via the High Speed Shared Control Channel of UMTS.

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10. Base station for a mobile radio communication system, wherein the base station comprises a transmitter for transmitting data packets to a receiver of the mobile radio communication system; wherein the transmitter is adapted to send an indicator along with each data packet of the data packets; wherein the indicator indicates whether the respective data packet is a new data packet or a resent data packet; wherein, when the transmitter decodes a second confirmation message from the receiver which indicates that the receiver decoded a first data packet without an error, which data packet was sent along with the indicator indicating that the first data packet is a new data packet after the receiver has sent a first confirmation message with respect to a second data packet, the first confirmation message indicating the decoding of the

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second data packet with an error, the transmitter is adapted to re-send the second data packet.

11. Mobile subscriber station for a mobile radio communication system,
5 wherein the mobile subscriber station comprises a receiver for receiving data packets from a transmitter of the mobile radio communication system, wherein the transmitter sends an indicator along with each data packet of the data packets; wherein the indicator indicates whether the respective data packet is a new data packet or a re-sent data packet; wherein, when the receiver decodes a data packet with an error, the
10 receiver is adapted to send a first confirmation message to the transmitter; wherein, when the receiver decodes a first data packet without an error, which data packet was sent along with the indicator indicating that the first data packet is a new data packet after the receiver has sent a first confirmation message with respect to a second data packet, the receiver is adapted to send a second confirmation message to the
15 transmitter; wherein the second confirmation message tells the transmitter to re-send the second data packet.

12. Computer program for controlling a transmission of data packets from a transmitter to a receiver of a mobile radio communication system, wherein, when the
20 computer program is executed on the mobile radio communication system, the computer program causes that: the transmitter sends an indicator along with each data packet of the data packets; wherein the indicator indicates whether the respective data packet is a new data packet or a re-sent data packet; when the receiver decodes a data packet with an error, the receiver sends a first confirmation message to the transmitter;
25 when the receiver decodes a first data packet without an error, which data packet was sent along with the indicator indicating that the first data packet is a new data packet after the receiver has sent a first confirmation message with respect to a second data packet, the receiver sends a second confirmation message to the transmitter; and the transmitter re-sends the second data packet upon reception of the second confirmation
30 message.